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PCT10

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/10/031,289

DATE: 08/14/2002  
 TIME: 09:14:24

Input Set : A:\i639-102 seqlist.TXT  
 Output Set: N:\CRF3\08142002\J031289.raw

3 <110> APPLICANT: CHIRON SpA  
 W--> 4 <110> APPLICANT: MASIGNANI Vega  
 W--> 5 <110> APPLICANT: SCARLATO Vincenzo  
 W--> 6 <110> APPLICANT: SCARSELLI Maria  
 W--> 7 <110> APPLICANT: GALEOTTI Cesira  
 9 <120> TITLE OF INVENTION: ANTIGENIC MENINGOCOCCAL PEPTIDES  
 11 <130> FILE REFERENCE: P022260WO  
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/031,289  
 C--> 14 <141> CURRENT FILING DATE: 2002-01-14  
 16 <150> PRIOR APPLICATION NUMBER: GB-9916529.2  
 17 <151> PRIOR FILING DATE: 1999-07-14  
 19 <160> NUMBER OF SEQ ID NOS: 1769  
 21 <170> SOFTWARE: SeqWin99, version 1.02  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 9  
 25 <212> TYPE: PRT  
 26 <213> ORGANISM: Neisseria meningitidis  
 28 <400> SEQUENCE: 1  
 29 Ala Leu Ala Val Cys Thr Ala Leu Ala  
 30 1 5  
 32 <210> SEQ ID NO: 2  
 W--> 33 <400> SEQUENCE: 2  
 W--> 34 000  
 36 <210> SEQ ID NO: 3  
 37 <211> LENGTH: 10  
 38 <212> TYPE: PRT  
 39 <213> ORGANISM: Neisseria meningitidis  
 41 <400> SEQUENCE: 3  
 42 Leu Gly Met Leu Asp Thr Leu Ser Lys Leu  
 43 1 5 10  
 45 <210> SEQ ID NO: 4  
 46 <211> LENGTH: 9  
 47 <212> TYPE: PRT  
 48 <213> ORGANISM: Neisseria meningitidis  
 50 <400> SEQUENCE: 4  
 51 Leu Glu Glu Tyr Phe Lys Thr Thr Lys  
 52 1 5  
 54 <210> SEQ ID NO: 5  
 55 <211> LENGTH: 11  
 56 <212> TYPE: PRT  
 57 <213> ORGANISM: Neisseria meningitidis  
 59 <400> SEQUENCE: 5  
 60 Ala Ala Lys Ala Phe Asp Lys Leu Asn Glu Ile

## RAW SEQUENCE LISTING

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Input Set : A:\1639-102 seqlist.TXT

Output Set: N:\CRF3\08142002\J031289.raw

```

61 1          5          10
63 <210> SEQ ID NO: 6
64 <211> LENGTH: 18
65 <212> TYPE: PRT
66 <213> ORGANISM: Neisseria meningitidis
68 <400> SEQUENCE: 6
69 Asn Leu Lys Glu Ser Ala Lys Glu Arg Ile Asp Ala Leu Ala Gln Ile
70 1          5          10          15
72 Phe Gly
75 <210> SEQ ID NO: 7
76 <211> LENGTH: 6
77 <212> TYPE: PRT
78 <213> ORGANISM: Neisseria meningitidis
80 <400> SEQUENCE: 7
81 Pro Ser Ser Arg Leu Gly
82 1          5
84 <210> SEQ ID NO: 8
85 <211> LENGTH: 6
86 <212> TYPE: PRT
87 <213> ORGANISM: Neisseria meningitidis
89 <400> SEQUENCE: 8
90 Ile Lys Glu Gly Ser His
91 1          5
93 <210> SEQ ID NO: 9
W--> 94 <400> SEQUENCE: 9
W--> 95 000
97 <210> SEQ ID NO: 10
98 <211> LENGTH: 18
99 <212> TYPE: PRT
100 <213> ORGANISM: Neisseria meningitidis
102 <400> SEQUENCE: 10
103 Ala Gln Glu Leu Leu Asn Ala Ser Lys Gln Val Ala Asp Ala Phe Asn
104 1          5          10          15
106 Ala Ala
109 <210> SEQ ID NO: 11
110 <211> LENGTH: 19
111 <212> TYPE: PRT
112 <213> ORGANISM: Neisseria meningitidis
114 <400> SEQUENCE: 11
115 Gly Ala Cys Ser Pro Gln Asn Ser Asp Ser Ala Pro Gln Ala Lys Glu
116 1          5          10          15
118 Gln Ala Val
121 <210> SEQ ID NO: 12
122 <211> LENGTH: 6
123 <212> TYPE: PRT
124 <213> ORGANISM: Neisseria meningitidis
126 <400> SEQUENCE: 12
127 Ala Gln Thr Glu Gly Ala
128 1          5

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## RAW SEQUENCE LISTING

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Input Set : A:\1639-102 seqlist.TXT

Output Set: N:\CRF3\08142002\J031289.raw

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130 <210> SEQ ID NO: 13
131 <211> LENGTH: 19
132 <212> TYPE: PRT
133 <213> ORGANISM: Neisseria meningitidis
135 <400> SEQUENCE: 13
136 Val Lys Thr Ala Arg Gly Asp Val Gln Ile Pro Gln Asn Pro Glu Arg
137 1          5          10          15
139 Ile Ala Val
142 <210> SEQ ID NO: 14
143 <211> LENGTH: 20
144 <212> TYPE: PRT
145 <213> ORGANISM: Neisseria meningitidis
147 <400> SEQUENCE: 14
148 Thr Leu Ser Lys Leu Gly Val Lys Thr Gly Leu Ser Val Asp Lys Asn
149 1          5          10          15
151 Arg Leu Pro Tyr
152          20
154 <210> SEQ ID NO: 15
155 <211> LENGTH: 19
156 <212> TYPE: PRT
157 <213> ORGANISM: Neisseria meningitidis
159 <400> SEQUENCE: 15
160 Glu Tyr Phe Lys Thr Thr Lys Pro Ala Gly Thr Leu Phe Glu Pro Asp
161 1          5          10          15
163 Tyr Glu Thr
166 <210> SEQ ID NO: 16
167 <211> LENGTH: 4
168 <212> TYPE: PRT
169 <213> ORGANISM: Neisseria meningitidis
171 <400> SEQUENCE: 16
172 Asn Ala Tyr Lys
173 1
175 <210> SEQ ID NO: 17
176 <211> LENGTH: 13
177 <212> TYPE: PRT
178 <213> ORGANISM: Neisseria meningitidis
180 <400> SEQUENCE: 17
181 Gly Ser Arg Ala Ala Lys Ala Phe Asp Lys Leu Asn Glu
182 1          5          10
184 <210> SEQ ID NO: 18
185 <211> LENGTH: 4
186 <212> TYPE: PRT
187 <213> ORGANISM: Neisseria meningitidis
189 <400> SEQUENCE: 18
190 Met Thr Ala Asp
191 1
193 <210> SEQ ID NO: 19
194 <211> LENGTH: 13
195 <212> TYPE: PRT

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## RAW SEQUENCE LISTING

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Input Set : A:\1639-102 seqlist.TXT

Output Set: N:\CRF3\08142002\J031289.raw

```

196 <213> ORGANISM: Neisseria meningitidis
198 <400> SEQUENCE: 19
199 Ala Asn Leu Lys Glu Ser Ala Lys Glu Arg Ile Asp Ala
200 1          5          10
202 <210> SEQ ID NO: 20
203 <211> LENGTH: 29
204 <212> TYPE: PRT
205 <213> ORGANISM: Neisseria meningitidis
207 <400> SEQUENCE: 20
208 Lys Gln Ala Glu Ala Asp Lys Leu Lys Ala Glu Ile Asp Ala Ser Phe
209 1          5          10          15
211 Glu Ala Ala Lys Thr Ala Ala Gln Gly Lys Gly Lys Gly
212          20          25
214 <210> SEQ ID NO: 21
215 <211> LENGTH: 16
216 <212> TYPE: PRT
217 <213> ORGANISM: Neisseria meningitidis
219 <400> SEQUENCE: 21
220 Asn Gly Gly Lys Met Ser Ala Phe Gly Pro Ser Ser Arg Leu Gly Gly
221 1          5          10          15
224 <210> SEQ ID NO: 22
225 <211> LENGTH: 23
226 <212> TYPE: PRT
227 <213> ORGANISM: Neisseria meningitidis
229 <400> SEQUENCE: 22
230 Leu His Lys Asp Ile Gly Val Pro Ala Val Asp Glu Ser Ile Lys Glu
231 1          5          10          15
233 Gly Ser His Gly Gln Pro Ile
234          20
236 <210> SEQ ID NO: 23
237 <211> LENGTH: 9
238 <212> TYPE: PRT
239 <213> ORGANISM: Neisseria meningitidis
241 <400> SEQUENCE: 23
242 Tyr Leu Lys Glu Lys Asn Pro Asp Trp
243 1          5
245 <210> SEQ ID NO: 24
246 <211> LENGTH: 22
247 <212> TYPE: PRT
248 <213> ORGANISM: Neisseria meningitidis
250 <400> SEQUENCE: 24
251 Asp Arg Ser Ala Ala Ile Gly Glu Glu Gly Gln Ala Ala Lys Asp Val
252 1          5          10          15
254 Leu Asp Asn Pro Leu Val
255          20
257 <210> SEQ ID NO: 25
258 <211> LENGTH: 9
259 <212> TYPE: PRT
260 <213> ORGANISM: Neisseria meningitidis

```

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Input Set : A:\1639-102 seqlist.TXT

Output Set: N:\CRF3\08142002\J031289.raw

```

262 <400> SEQUENCE: 25
263 Thr Ala Trp Lys Lys Gly Gln Val Val
264 1 5
266 <210> SEQ ID NO: 26
267 <211> LENGTH: 7
268 <212> TYPE: PRT
269 <213> ORGANISM: Neisseria meningitidis
271 <400> SEQUENCE: 26
272 Asn Ala Ser Lys Gln Val Ala
273 1 5
275 <210> SEQ ID NO: 27
276 <211> LENGTH: 14
277 <212> TYPE: PRT
278 <213> ORGANISM: Neisseria meningitidis
280 <400> SEQUENCE: 27
281 Gln Asn Ser Asp Ser Ala Pro Gln Ala Lys Glu Gln Ala Val
282 1 5 10
284 <210> SEQ ID NO: 28
285 <211> LENGTH: 6
286 <212> TYPE: PRT
287 <213> ORGANISM: Neisseria meningitidis
289 <400> SEQUENCE: 28
290 Ala Gln Thr Glu Gly Ala
291 1 5
293 <210> SEQ ID NO: 29
294 <211> LENGTH: 9
295 <212> TYPE: PRT
296 <213> ORGANISM: Neisseria meningitidis
298 <400> SEQUENCE: 29
299 Lys Thr Ala Arg Gly Asp Val Gln Ile
300 1 5
302 <210> SEQ ID NO: 30
303 <211> LENGTH: 5
304 <212> TYPE: PRT
305 <213> ORGANISM: Neisseria meningitidis
307 <400> SEQUENCE: 30
308 Gln Asn Pro Glu Arg
309 1 5
311 <210> SEQ ID NO: 31
W--> 312 <400> SEQUENCE: 31
W--> 313 000
315 <210> SEQ ID NO: 32
W--> 316 <400> SEQUENCE: 32
W--> 317 000
319 <210> SEQ ID NO: 33
320 <211> LENGTH: 10
321 <212> TYPE: PRT
322 <213> ORGANISM: Neisseria meningitidis
324 <400> SEQUENCE: 33

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/031,289

DATE: 08/14/2002  
TIME: 09:14:25

Input Set : A:\1639-102 seqlist.TXT  
Output Set: N:\CRF3\08142002\J031289.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:405; Xaa Pos. 7  
Seq#:414; Xaa Pos. 1  
Seq#:415; Xaa Pos. 14  
Seq#:417; Xaa Pos. 5  
Seq#:419; Xaa Pos. 6  
Seq#:430; Xaa Pos. 5  
Seq#:442; Xaa Pos. 1  
Seq#:448; Xaa Pos. 4  
Seq#:464; Xaa Pos. 3  
Seq#:568; Xaa Pos. 2  
Seq#:570; Xaa Pos. 4  
Seq#:585; Xaa Pos. 2  
Seq#:587; Xaa Pos. 2  
Seq#:590; Xaa Pos. 2  
Seq#:592; Xaa Pos. 3,5  
Seq#:601; Xaa Pos. 9  
Seq#:607; Xaa Pos. 11  
Seq#:608; Xaa Pos. 5  
Seq#:617; Xaa Pos. 21  
Seq#:618; Xaa Pos. 7,13  
Seq#:621; Xaa Pos. 5,7  
Seq#:622; Xaa Pos. 2  
Seq#:624; Xaa Pos. 1  
Seq#:631; Xaa Pos. 6  
Seq#:638; Xaa Pos. 6  
Seq#:639; Xaa Pos. 5  
Seq#:648; Xaa Pos. 12  
Seq#:649; Xaa Pos. 7,13  
Seq#:652; Xaa Pos. 1,3  
Seq#:798; Xaa Pos. 2  
Seq#:800; Xaa Pos. 4  
Seq#:815; Xaa Pos. 2  
Seq#:817; Xaa Pos. 2  
Seq#:820; Xaa Pos. 2  
Seq#:822; Xaa Pos. 3,5  
Seq#:824; Xaa Pos. 3  
Seq#:828; Xaa Pos. 2  
Seq#:841; Xaa Pos. 9  
Seq#:847; Xaa Pos. 11  
Seq#:848; Xaa Pos. 5  
Seq#:857; Xaa Pos. 21  
Seq#:858; Xaa Pos. 7,13  
Seq#:861; Xaa Pos. 5,7  
Seq#:862; Xaa Pos. 2

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/031,289

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Input Set : A:\1639-102 seqlist.TXT  
Output Set: N:\CRF3\08142002\J031289.raw

Seq#:864; Xaa Pos. 1  
Seq#:870; Xaa Pos. 2  
Seq#:881; Xaa Pos. 6  
Seq#:888; Xaa Pos. 6  
Seq#:889; Xaa Pos. 5  
Seq#:898; Xaa Pos. 12  
Seq#:899; Xaa Pos. 7,13  
Seq#:902; Xaa Pos. 1,3  
Seq#:992; Xaa Pos. 5  
Seq#:995; Xaa Pos. 4  
Seq#:1000; Xaa Pos. 3  
Seq#:1003; Xaa Pos. 2  
Seq#:1114; Xaa Pos. 8  
Seq#:1121; Xaa Pos. 8  
Seq#:1136; Xaa Pos. 7  
Seq#:1147; Xaa Pos. 4  
Seq#:1156; Xaa Pos. 10,11  
Seq#:1158; Xaa Pos. 2  
Seq#:1159; Xaa Pos. 1,14  
Seq#:1161; Xaa Pos. 2  
Seq#:1175; Xaa Pos. 2,3  
Seq#:1179; Xaa Pos. 2  
Seq#:1523; Xaa Pos. 9  
Seq#:1531; Xaa Pos. 2,3  
Seq#:1542; Xaa Pos. 2  
Seq#:1547; Xaa Pos. 11  
Seq#:1560; Xaa Pos. 2  
Seq#:1563; Xaa Pos. 8  
Seq#:1565; Xaa Pos. 7  
Seq#:1567; Xaa Pos. 14  
Seq#:1569; Xaa Pos. 8  
Seq#:1584; Xaa Pos. 6  
Seq#:1590; Xaa Pos. 3  
Seq#:1605; Xaa Pos. 1,5,6,7  
Seq#:1606; Xaa Pos. 7  
Seq#:1615; Xaa Pos. 1,8,9,19,20  
Seq#:1619; Xaa Pos. 3  
Seq#:1623; Xaa Pos. 2  
Seq#:1635; Xaa Pos. 2  
Seq#:1640; Xaa Pos. 11  
Seq#:1654; Xaa Pos. 2  
Seq#:1660; Xaa Pos. 7  
Seq#:1662; Xaa Pos. 14  
Seq#:1665; Xaa Pos. 6  
Seq#:1677; Xaa Pos. 6  
Seq#:1699; Xaa Pos. 3,4,5  
Seq#:1700; Xaa Pos. 7  
Seq#:1713; Xaa Pos. 7,8  
Seq#:1720; Xaa Pos. 2



## VERIFICATION SUMMARY

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TIME: 09:14:25

Input Set : A:\1639-102 seqlist.TXT

Output Set: N:\CRF3\08142002\J031289.raw

L:4 M:280 W: Numeric Identifier already exists, <110> found multiple times  
L:5 M:280 W: Numeric Identifier already exists, <110> found multiple times  
L:6 M:280 W: Numeric Identifier already exists, <110> found multiple times  
L:7 M:280 W: Numeric Identifier already exists, <110> found multiple times  
L:13 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:33 M:283 W: Missing Blank Line separator, <400> field identifier  
L:34 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (2) SEQUENCE:  
L:94 M:283 W: Missing Blank Line separator, <400> field identifier  
L:95 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (9) SEQUENCE:  
L:312 M:283 W: Missing Blank Line separator, <400> field identifier  
L:313 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (31) SEQUENCE:  
L:316 M:283 W: Missing Blank Line separator, <400> field identifier  
L:317 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (32) SEQUENCE:  
L:386 M:283 W: Missing Blank Line separator, <400> field identifier  
L:387 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (40) SEQUENCE:  
L:447 M:283 W: Missing Blank Line separator, <400> field identifier  
L:448 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (47) SEQUENCE:  
L:499 M:283 W: Missing Blank Line separator, <400> field identifier  
L:500 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (53) SEQUENCE:  
L:512 M:283 W: Missing Blank Line separator, <400> field identifier  
L:513 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (55) SEQUENCE:  
L:730 M:283 W: Missing Blank Line separator, <400> field identifier  
L:731 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (77) SEQUENCE:  
L:734 M:283 W: Missing Blank Line separator, <400> field identifier  
L:735 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (78) SEQUENCE:  
L:804 M:283 W: Missing Blank Line separator, <400> field identifier  
L:805 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (86) SEQUENCE:  
L:953 M:283 W: Missing Blank Line separator, <400> field identifier  
L:954 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (102) SEQUENCE:  
L:1002 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1003 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (108) SEQUENCE:  
L:1006 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1007 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (109) SEQUENCE:  
L:1055 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1056 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (115) SEQUENCE:  
L:1059 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1060 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (116) SEQUENCE:  
L:1090 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1091 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (120) SEQUENCE:  
L:1167 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1168 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (129) SEQUENCE:  
L:1171 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1172 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (130) SEQUENCE:  
L:1226 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1227 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (136) SEQUENCE:  
L:1230 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1231 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (137) SEQUENCE:

## VERIFICATION SUMMARY

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Input Set : A:\1639-102 seqlist.TXT

Output Set: N:\CRF3\08142002\J031289.raw

L:1234 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1235 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (138) SEQUENCE:  
 L:1238 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1239 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (139) SEQUENCE:  
 L:1353 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1354 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (152) SEQUENCE:  
 L:1384 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1385 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (156) SEQUENCE:  
 L:1470 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1471 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (166) SEQUENCE:  
 L:1474 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1475 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (167) SEQUENCE:  
 L:1478 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1479 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (168) SEQUENCE:  
 L:1521 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1522 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (173) SEQUENCE:  
 L:1525 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1526 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (174) SEQUENCE:  
 L:1601 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1602 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (183) SEQUENCE:  
 L:1614 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1615 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (185) SEQUENCE:  
 L:1618 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1619 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (186) SEQUENCE:  
 L:1649 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1650 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (190) SEQUENCE:  
 L:1662 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1663 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (192) SEQUENCE:  
 L:1666 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1667 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (193) SEQUENCE:  
 L:1767 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1768 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (204) SEQUENCE:  
 L:1816 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1817 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (210) SEQUENCE:  
 L:1820 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1821 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (211) SEQUENCE:  
 L:1869 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1870 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (212) SEQUENCE:  
 L:1873 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1874 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (218) SEQUENCE:  
 L:1904 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1905 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (222) SEQUENCE:  
 L:1981 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1982 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (231) SEQUENCE:  
 L:1985 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:1986 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (232) SEQUENCE:  
 L:2040 M:283 W: Missing Blank Line separator, <400> field identifier  
 L:2041 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (238) SEQUENCE:  
 L:2044 M:283 W: Missing Blank Line separator, <400> field identifier

## VERIFICATION SUMMARY

DATE: 08/14/2002

PATENT APPLICATION: US/10/031,289

TIME: 09:14:25

Input Set : A:\1639-102 seqlist.TXT

Output Set: N:\CRF3\08142002\J031289.raw

L:2045 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (239) SEQUENCE:  
L:2048 M:283 W: Missing Blank Line separator, <400> field identifier  
L:2049 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (240) SEQUENCE:  
L:2052 M:283 W: Missing Blank Line separator, <400> field identifier  
L:2053 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (241) SEQUENCE:  
L:2167 M:283 W: Missing Blank Line separator, <400> field identifier  
L:2168 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (254) SEQUENCE:  
L:2198 M:283 W: Missing Blank Line separator, <400> field identifier  
L:2199 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (258) SEQUENCE:  
L:3443 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:405  
L:3448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:405 after pos.:0  
L:3530 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:414  
L:3535 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:414 after pos.:0  
L:3550 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:415  
L:3555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:415 after pos.:0  
L:3576 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:417  
L:3581 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:417 after pos.:0  
L:3602 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:419  
L:3607 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:419 after pos.:0  
L:3724 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:430  
L:3729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:430 after pos.:0  
L:3840 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:442  
L:3845 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:442 after pos.:0  
L:3899 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:448  
L:3904 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:448 after pos.:0  
L:4042 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:464  
L:4047 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:464 after pos.:0  
L:4965 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:568  
L:4970 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:568 after pos.:0  
L:4983 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:570  
L:4988 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:570 after pos.:0  
L:5126 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:585  
L:5131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:585 after pos.:0  
L:5149 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:587  
L:5154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:587 after pos.:0  
L:5184 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:590  
L:5189 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:590 after pos.:0  
L:5208 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:592  
L:5213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:592 after pos.:0  
L:5290 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:601  
L:5295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:601 after pos.:0  
L:5347 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:607  
L:5352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:607 after pos.:0  
L:5364 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:608  
L:5369 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:608 after pos.:0  
L:5454 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:617  
L:5462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:617 after pos.:16  
L:5471 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:618  
L:5476 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:618 after pos.:0

## VERIFICATION SUMMARY

DATE: 08/14/2002

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Input Set : A:\1639-102 seqlist.TXT

Output Set: N:\CRF3\08142002\J031289.raw

L:5504 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:621  
L:5509 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:621 after pos.:0  
L:5518 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:622  
L:5523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:622 after pos.:0  
L:5544 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:624  
L:5549 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:624 after pos.:0  
L:5597 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:631  
L:5602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:631 after pos.:0  
L:5658 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:638  
L:5663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:638 after pos.:0  
L:5672 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:639  
L:5677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:639 after pos.:0  
L:5754 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:648  
L:5759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:648 after pos.:0  
L:5768 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:649  
L:5773 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:649 after pos.:0  
L:5801 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:652  
L:5806 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:652 after pos.:0  
L:7067 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:798  
L:7072 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:798 after pos.:0  
L:7085 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:800  
L:7090 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:800 after pos.:0  
L:7228 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:815  
L:7233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:815 after pos.:0  
L:7251 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:817  
L:7256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:817 after pos.:0  
L:7286 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:820  
L:7291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:820 after pos.:0  
L:7310 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:822  
L:7315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:822 after pos.:0  
L:7339 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:824  
L:7344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:824 after pos.:0  
L:7383 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:828  
L:7388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:828 after pos.:0  
L:7502 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:841  
L:7507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:841 after pos.:0  
L:7559 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:847  
L:7564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:847 after pos.:0  
L:7576 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:848  
L:7581 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:848 after pos.:0  
L:7666 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:857  
L:7674 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:857 after pos.:16  
L:7683 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:858  
L:7688 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:858 after pos.:0  
L:7716 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:861  
L:7721 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:861 after pos.:0  
L:7730 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:862  
L:7735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:862 after pos.:0  
L:7756 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:864

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Input Set : A:\1639-102 seqlist.TXT

Output Set: N:\CRF3\08142002\J031289.raw

L:7761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:864 after pos.:0  
L:7808 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:870  
L:7813 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:870 after pos.:0  
L:7900 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:881  
L:7905 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:881 after pos.:0  
L:7961 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:888  
L:7966 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:888 after pos.:0  
L:7975 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:889  
L:7980 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:889 after pos.:0  
L:8057 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:898  
L:8062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:898 after pos.:0